Class Tasks A4
Structure Testing
Scenario 4
Requirements

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Class Task 4 – Structure Testing

- You have been given a partially completed database called “EB Computers Database FOR TESTING”.
- You have been given a range of database structure tests to carry out.
- Complete the supplied test plan for each test.
- Document your results thoroughly.
- Discuss your findings with the group.
- **Time Allowed:** 25 minutes.

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Scenario 4 - The East Berkshire Computer Repair Shop

You are designing a database for the East Berkshire Computer Repair Shop. The company records data about Customers and the parts that they have in stock. The database will the orders placed by a customer, including the parts in each order, as well as the number of parts required.

- A Customer can place many orders, but each order belongs to only one customer.
- An order can contain more than one part, and each part can be found in multiple orders.
- A part can belong to a category of either ‘hardware’ or ‘software’.
- The part cost can only be £99, £149, £199 or £299.
- You can only order a maximum quantity of 5 parts.
- The order date must be before 2021.
- The customer postcode follows the same number / letter format.
- The phone number for the customer must have a single number, followed by a space, 3 numbers, followed by a space and then the remaining numbers.

If you do not have your existing data base from the previous exercise, one has been provided for you.

You should now have your database relationships designed and it is now time to add Data Validation rules.

Your table structures must use suitable validation rules to meet the following requirements.

- A Customer Name must be present.
- A Customer Postcode must be present.
- A Customer Postcode must follow the appropriate display rules.
- A Customer Phone Number must be present.
- A Customer Phone number must be exactly 8 digits and follow the display rules of a space between the first and second and fourth and fifth digits.
- A Part Category must exist.
- A Part Category can only be Hardware or Software.
- A Part Name must exist.
- A Part Name can be no longer than 3 letters.
- A Part Cost must be between 99 and 299.
- A Part must belong to an existing, valid Part Category.
- An Order Date must exist.
- An Order Date must be after 01/01/2020.
- An Order Date Year must start with ‘20’.
- An Order Date must follow the appropriate display format Day/Month/Year.
- An Order must belong to an existing, valid Customer.
- A Part Order must contain a valid, existing PartID, and the PartID must be present.
- A Part Order must contain a valid, existing OrderID and the OrderID must be present.
- The Part Quantity must be present and must be between 1 and 5.
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You will test the structure and the validation of your relational database using suitable test data

(normal, erroneous and extreme as appropriate).

You must provide evidence of table level testing that proves:

1. a record will not be saved if the customer post code is missing.
2. a record will not be saved

Complete the attached test log to show how you have tested the structure and validation of your

database.

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